

Clean Set Of Pending Claims

1. A base for a thermoplastic container, comprising;
a bottom;
a pair of opposing side walls and a pair of opposing end walls, said side walls and said end walls extending upward from said bottom, said end walls extending between said side walls; and
a rim encompassing an upper edge of said side walls and said end walls and extending laterally outwardly therefrom, said bottom having a plurality of depending wells sufficiently small to retain a volume of liquid in each of said wells via capillary action or surface tension forces such that said volume of liquid therein does not flow out when said base is tilted or turned upside-down, each of said wells having an interior surface area, said container having a ratio of the capacity for said volume of liquid to said interior surface area in the range of approximately 2.8×10^{-2} in. to 3.8×10^{-3} in.
2. The container of claim 1, wherein said wells for retaining liquid retain a volume of liquid that is less than a total volumetric capacity of each well when said base is tilted or turned upside-down.
3. The container of claim 1, wherein all of said wells are of uniform shape and size.
4. The container of claim 1, wherein said wells are substantially semi-spherical in shape.
5. The container of claim 1, wherein said wells for retaining liquid retain a volume that is approximately 1.7×10^{-4} in³ to 3.6×10^{-3} in³.
6. The container of claim 5, wherein said wells have a diameter of approximately 3/32 to 3/8 inch.
7. A thermoplastic container, comprising:

a bottom;
a continuous wall extending upward from and encompassing said bottom; and
a base rim encompassing an upper edge of said continuous wall and extending laterally outwardly therefrom, said rim having an integrally formed outer flange with a pair of opposing anchoring portions, said outer flange forming at least one handle segment, each of said handle segments having a pair of generally parallel hinged portions and a graspable portion extending between said hinged portions, said hinged portions being rotatably connected to said respective anchoring portions for upward and downward swinging movements, said handle segments having means for releasably engaging said handle segments to each other, each of said hinged portions having at least one upwardly extending rib segment extending upwardly from an upper surface of the associated hinged portion, at least one downwardly extending rib segment extending downwardly from a lower surface of the associated hinged portion, and at least one integral hinge forming a definite bending point.

8. The container of claim 7, wherein each of said hinged portions has a plurality of upwardly extending rib segments extending upwardly from said upper surface of the associated hinged portion, and a plurality of downwardly extending rib segments extending downwardly from said lower surface of the associated hinged portion;

wherein consecutive ones of said upwardly extending rib segments are interconnected at integral hinges, consecutive ones of said downwardly extending rib segments are interconnected at integral hinges, and consecutive ones of said upwardly and downwardly extending rib segments are interconnected by integral hinges.

9. The container of claim 7, wherein said integral hinges between said consecutive upwardly extending rib segments are formed by integrally molded substantially V-shaped notches, and said integral hinges between said consecutive downwardly extending rib segments are formed by integrally molded substantially V-shaped notches.

10. The container of claim 7, wherein each of said hinged portions has a plurality of upwardly extending rib segments extending upwardly from said upper surface of the associated hinged portion, and a plurality of downwardly extending rib segments extending downwardly from said lower surface of the associated hinged portion, said upwardly extending rib segments are proximally located to said respective anchoring portion relative to said downwardly extending rib segments when formed, said downwardly extending rib segments are distally located from said respective anchoring portion relative to said upwardly extending rib segments when formed.

11. The container of claim 10, wherein one of said upwardly extending rib segments is adjoined and rotatably hinged to said anchoring portion, said adjoining rib segment being longer than other ones of said upwardly and downwardly extending rib segments in said hinged portion.

12. The container of claim 11, wherein said upwardly extending rib segments located between said adjoining rib segment and said downwardly extending rib segments have approximately the same depth as and are shorter in length than said downwardly extending rib segments.

13. The container of claim 11, wherein the distance between said opposing end walls is approximately 8 inches, said adjoining rib is approximately 3/8 inch in length, said upwardly extending rib segment located between said adjoining rib segment and said downwardly extending rib segment is approximately 1/4 inch in length, and said downwardly extending rib segment is approximately 1/4 inch in length.

14. The container of claim 11, wherein the distance between said opposing end walls is approximately 12 inches, said adjoining rib is approximately 1/2 inch in length, said upwardly extending rib segment located between said adjoining rib segment and said downwardly extending rib segment is approximately 7/32 inch in length, and said downwardly extending rib segment is approximately 3/8 inch in length.

15. The container of claim 7, wherein said hinged portions of each of said handle segments are integrally interconnected with said respective graspable portion at corner flanges, said corner flanges having a reinforcing bead.

16. The container of claim 7, wherein each of said anchoring portions includes a upwardly extending reinforcing rib substantially parallel to said side walls of said base.

17. The container of claim 16, wherein said base rim further includes an upwardly protruding elongated rib, said container further including at least one cross-rib disposed between said elongated rib and said reinforcing rib.

18. The container of claim 17, wherein said cross-rib is substantially parallel to said base end walls.

19. The container of claim 7, wherein said means for releasably engaging said handle segments includes at least one male rib extending from one of said handle segments, and at least one depending female recess formed in the other of said handle segments.

20. The container of claim 19, wherein said male rib is substantially rectangular and includes a shoulder structure extending outwardly from opposite ends of said male rib, said female recess positioned and dimensioned to receive said cooperating male rib, said female recess having opposite ends, said opposite ends of said female recess having an inwardly extending shoulder structure adapted to mate with said outwardly extending shoulder structure of said male rib, said ends of said male rib and said ends of said female recess being constructed and arranged to deflect with respect to each other so that when said male rib is pressed into said female recess said shoulder structure on said male rib will snap into position beneath said shoulder structure in said female recess and interlock therewith to latch said handle segments together.

21. The container of claim 7, wherein said bottom includes at least one elongated recess for substantially receiving a portion of said handle segments to facilitate stacking of said containers, said portion including said graspable portion.
22. The container of claim 7, wherein said container further includes a cover having a top, a pair of opposing cover side walls, a pair of opposing cover end walls, and a cover rim, said cover side walls and said cover end walls extending downward from said top, said cover end walls extending between said cover side walls, said cover rim encompassing a lower edge of said cover side walls and said cover end walls and extending laterally outwardly therefrom.
23. The container of claim 22, wherein said cover rim further includes a downwardly protruding rib, said base rim further includes an upwardly protruding elongated rib.
24. The container of claim 23 further including means for securing said cover to said base.
25. The container of claim 24, wherein said means for securing said cover to said base includes said downwardly protruding rib of said cover rim and said upwardly protruding elongated rib of said base rim, said downwardly protruding rib of said cover rim being adapted for complementary press-fittable engagement with said upwardly protruding elongated rib of said base rim.
26. The container of claim 24, wherein said means for securing said cover to said base includes at least one male rib and at least one corresponding female recess.
27. The container of claim 26, wherein said male rib and female recess are substantially cone-shaped.
28. The container of claim 26, wherein said male rib is substantially rectangular and includes a shoulder structure extending outwardly from opposite ends of said male rib, said female recess positioned and dimensioned to receive said cooperating male rib, said female recess having

opposite ends, said opposite ends of said female recess having an inwardly extending shoulder structure adapted to mate with said outwardly extending shoulder structure of said male rib, said ends of said male rib and said ends of said female recess being constructed and arranged to deflect with respect to each other so that when said male rib is pressed into said female recess said shoulder structure on said male rib will snap into position beneath said shoulder structure in said female recess and interlock therewith to latch said cover and said base together.

29. The container of claim 23, wherein said upwardly protruding elongated rib of said base rim includes a plurality of base venting notches intermittently interrupting said upwardly protruding elongated rib of said base rim.

30. The container of claim 23, wherein said downwardly protruding rib of said cover rim includes a plurality of cover venting notches intermittently interrupting said downwardly protruding rib of said cover rim.

31. The container of claim 23, wherein said upwardly protruding elongated rib of said base rim includes a plurality of base venting notches intermittently interrupting said upwardly protruding elongated rib of said base rim, said downwardly protruding rib of said cover rim includes a plurality of cover venting notches intermittently interrupting said downwardly protruding rib of said cover rim.

32. The container of claim 31, wherein said base venting notches are aligned with said respective cover venting notches and form respective vent openings when said cover is secured atop said base.

33. The container of claim 22, wherein said cover includes a plurality of apertures substantially formed in said cover side walls and said cover end walls.

34. The container of claim 33, wherein each of said apertures has an area of approximately 0.25 in.².

35. The container of claim 34, wherein the distance between said opposing cover end walls is approximately 8 inches, each of said cover end walls having two said apertures, each of said cover side walls having three said apertures.

36. The container of claim 34, wherein the distance between said opposing cover end walls is approximately 12 inches, each of said cover end walls having two said apertures, each of said cover side walls having five said apertures.

37. The container of claim 33, wherein said apertures are aligned with said vent openings.

38. The container of claim 22 further including means for stacking said containers.

39. The container of claim 38, wherein said means for stacking includes a recessed bottom portion depending from said bottom, and a recessed top portion depending from said top whereby a plurality of said containers when stacked on one another provide a stack interlock produced by said top portion dimensioned and positioned to receive said cooperating depending bottom portion of the adjacent container in the stack.

40. The container of claim 39, wherein said recessed bottom portion and said recessed top portion are bowed.

41. A thermoplastic container comprising:

a base including a bottom, a pair of opposing base side walls, a pair of opposing base end walls, and a base rim, said base side walls and said base end walls extending upward from said bottom, said base end walls extending between said base side walls, said base rim encompassing an upper edge of said base side walls and said base end walls and extending laterally outwardly therefrom, said base rim having an upwardly protruding elongated rib with base venting notches intermittently interrupting said upwardly protruding rib; and a

cover including a top, a pair of opposing cover side walls, a pair of opposing cover end walls, and

a cover rim, said cover side walls and said cover end walls extending downward from said top, said cover end walls extending between said cover side walls, said cover rim encompassing a lower edge of said cover side walls and said cover end walls and extending laterally outwardly therefrom, said cover rim having a downwardly protruding rib.

42. The container of claim 41, wherein said downwardly protruding rim of said cover rim includes cover venting notches intermittently interrupting said downwardly protruding rib.

43. The container of claim 42, wherein said cover venting notches being aligned with said respective base venting notches and forming respective vent openings when said cover is secured atop said base.

44. The container of claim 41 further including means for securing said cover to said base.

45. The container of claim 44, wherein said means for securing said cover to said base includes said downwardly protruding rib of said cover rim and said upwardly protruding elongated rib of said base rim, said downwardly protruding rib of said cover rim being adapted for complementary press-fittable engagement with said upwardly protruding elongated rib of said base rim.

46. The container of claim 44, wherein said means for securing said cover to said base includes at least one male rib and at least one corresponding female recess.

47. The container of claim 46, wherein said male rib and female recess are substantially cone-shaped.

48. The container of claim 46, wherein said male rib is substantially rectangular and includes a shoulder structure extending outwardly from opposite ends of said male rib, said female recess

positioned and dimensioned to receive said cooperating male rib, said female recess having opposite ends, said opposite ends of said female recess having an inwardly extending shoulder structure adapted to mate with said outwardly extending shoulder structure of said male rib, said ends of said male rib and said ends of said female recess being constructed and arranged to deflect with respect to each other so that when said male rib is pressed into said female recess said shoulder structure on said male rib will snap into position beneath said shoulder structure in said female recess and interlock therewith to latch said cover and said base together.

49. The container of claim 41, wherein said cover includes a plurality of apertures.

50. The container of claim 49, wherein said apertures are substantially formed in said side walls and said end walls of said cover.

51. The container of claim 50, wherein said apertures are aligned with said vent openings.

52. The container of claim 41, wherein said container includes means for stacking said containers.

53. The container of claim 52, wherein said means for stacking includes a recessed bottom portion depending from said bottom, and a recessed top portion depending from said top whereby a plurality of said containers when stacked on one another provide a stack interlock produced by said top portion dimensioned and positioned to receive said cooperating depending bottom portion of the adjacent container in the stack.

54. The container of claim 53, wherein said recessed bottom portion and said recessed top portion are bowed.

55. The container of claim 41, wherein said bottom includes at least one reinforcing rib.

56. A thermoplastic container comprising:

a base including a bottom, a pair of opposing base side walls, a pair of opposing base end walls, and a base rim, said base side walls and said base end walls extending upward from said bottom, said base end walls extending between said base side walls, said base rim encompassing an upper edge of said base side walls and said base end walls and extending laterally outwardly therefrom, said base rim having an upwardly protruding elongated rib; and

a cover including a top, a pair of opposing cover side walls, a pair of opposing cover end walls, and a cover rim, said cover side walls and said cover end walls extending downward from said top, said cover end walls extending between said cover side walls, said cover rim encompassing a lower edge of said cover side walls and said cover end walls and extending laterally outwardly therefrom, said cover rim having a downwardly protruding rib with cover venting notches intermittently interrupting said downwardly protruding rib.

57. The container of claim 56, wherein said upwardly protruding elongated rib of said base rim includes base venting notches intermittently interrupting said upwardly protruding rib.

58. The container of claim 56, wherein said cover venting notches being aligned with said respective base venting notches and forming respective vent openings when said cover is secured atop said base.

59. The container of claim 56 further including means for securing said cover to said base.

60. The container of claim 59, wherein said means for securing said cover to said base includes said downwardly protruding rib of said cover rim and said upwardly protruding elongated rib of said base rim, said downwardly protruding rib of said cover rim being adapted for complementary press-fittable engagement with said upwardly protruding elongated rib of said base rim.

61. The container of claim 59, wherein said means for securing said cover to said base includes at least one male rib and at least one corresponding female recess.

62. The container of claim 61, wherein said male rib is substantially rectangular and includes a shoulder structure extending outwardly from opposite ends of said male rib, said female recess positioned and dimensioned to receive said cooperating male rib, said female recess having opposite ends, said opposite ends of said female recess having an inwardly extending shoulder structure adapted to mate with said outwardly extending shoulder structure of said male rib, said ends of said male rib and said ends of said female recess being constructed and arranged to deflect with respect to each other so that when said male rib is pressed into said female recess said shoulder structure on said male rib will snap into position beneath said shoulder structure in said female recess and interlock therewith to latch said cover and said base together.

63. The container of claim 56, wherein said cover includes a plurality of apertures.

64. The container of claim 63, wherein said apertures are substantially formed in said side walls and said end walls of said cover.

65. The container of claim 64, wherein said apertures are aligned with said vent openings.

66. The container of claim 56, wherein said container includes means for stacking said containers.

67. The container of claim 66, wherein said means for stacking includes a recessed bottom portion depending from said bottom, and a recessed top portion depending from said top whereby a plurality of said containers when stacked on one another provide a stack interlock produced by said top portion dimensioned and positioned to receive said cooperating depending bottom portion of the adjacent container in the stack.

68. The container of claim 67, wherein said recessed bottom portion and said recessed top portion are bowed.

69. The container of claim 56, wherein said bottom includes at least one reinforcing rib.
70. A thermoplastic container comprising:
a base including a bottom, a continuous wall, and a base rim, said continuous wall extending upward from and encompassing said bottom, said base rim encompassing an upper edge of said continuous wall and extending laterally outwardly therefrom, said base rim having an upwardly protruding elongated rib, said rim having an integrally formed outer flange with a pair of opposing anchoring portions, each anchoring portion having a pair of ends, said outer flange defining a score forming at least one handle segment being rotatably connected to said respective ends of said anchoring portions at integral hinges, said elongated rib and said anchoring portion defining a middle flange portion therebetween, said score extending into said middle flange portion.
71. The container of claim 70, wherein said anchoring portion includes an upwardly extending reinforcing rib.
72. The container of claim 70, wherein said middle flange portion includes at least one cross-rib disposed between said elongated rib and said anchoring portion.
73. The container of claim 72, wherein said cross-rib closest to said end of said anchoring portion is positioned a distance away from said end to form a recess.
74. The container of claim 73, wherein said recess is substantially U-shaped.
75. The container of claim 73, wherein said score extends into said recess.
76. The container of claim 72, wherein said anchoring portion is substantially parallel to said side walls and said cross-rib is substantially parallel to said end walls.
77. A thermoplastic container, comprising:

a bottom;
a continuous wall extending upward from and encompassing the bottom, and
a rim encompassing an upper edge of the continuous wall and extending laterally outwardly therefrom, the rim including an integrally formed outer flange, the outer flange having anchoring portions and a pair of hinged handles, the handles being hingedly connected to the anchoring portions for upward and downward swinging movement, the handles having means for releasably engaging the handles to each other above a remainder of the container, at least one of the handles having at least one rib segment extending upwardly from an upper surface of the associated handle.

78. The container of claim 77, wherein at least one of the handles has a plurality of upwardly extending rib segments extending upwardly from the upper surface of the associated handle.

79. The container of claim 77, wherein the means for releasably engaging the handles includes at least one male rib extending from one of the handles and at least one depending female recess formed in the other of the handles.

80. The container of claim 77, wherein the container further includes a cover having a top, a continuous cover wall, and a cover rim, the cover wall extending downward from and encompassing the top, the cover rim encompassing a lower edge of the cover wall and extending laterally outwardly therefrom.

81. A thermoplastic container, comprising:
a bottom;
a continuous wall extending upward from and encompassing the bottom, and
a rim encompassing an upper edge of the continuous wall and extending laterally outwardly therefrom, the rim including an integrally formed outer flange, the outer flange having anchoring portions and a pair of hinged handles, the handles being hingedly connected to the anchoring portions for upward and downward swinging movement, the handles having means for releasably engaging the handles to each other above a remainder of the container, at least

one of the handles having at least one rib segment extending downwardly from a lower surface of the associated handle.

82. The container of claim 81, wherein at least one of the handles has a plurality of downwardly extending rib segments extending downwardly from the lower surface of the associated handle.

83. The container of claim 81, wherein the means for releasably engaging the handles includes at least one male rib extending from one of the handles and at least one depending female recess formed in the other of the handles.

84. The container of claim 81, wherein the container further includes a cover having a top, a continuous cover wall, and a cover rim, the cover wall extending downward from and encompassing the top, the cover rim encompassing a lower edge of the cover wall and extending laterally outwardly therefrom.

85. A thermoplastic container, comprising:
a bottom;
a continuous wall extending upward from and encompassing the bottom; and
a rim extending laterally from an upper portion of the continuous wall and including an integrally formed outer flange, the outer flange having anchoring portions and a pair of hinged handles, the handles being hingedly connected to the anchoring portions for upward and downward swinging movement, the handles having means for releasably engaging the handles to each other above a remainder of the container, at least one of the handles having a plurality of rib segments extending upwardly from an upper surface of the associated handle.

86. The container of claim 85, wherein the means for releasably engaging the handles includes at least one male rib extending from one of the handles and at least one depending female recess formed in the other of the handles.

87. The container of claim 85, wherein the bottom includes at least one reinforcing rib.
88. A thermoplastic container, comprising:
a bottom;
a continuous wall extending upward from and encompassing the bottom; and
a rim extending laterally from an upper portion of the continuous wall and including an integrally formed outer flange, the outer flange having anchoring portions and a pair of hinged handles, the handles being hingedly connected to the anchoring portions for upward and downward swinging movement, the handles having means for releasably engaging the handles to each other above a remainder of the container, at least one of the handles having a plurality of rib segments extending downwardly from a lower surface of the associated handle.
89. The container of claim 88, wherein the means for releasably engaging the handles includes at least one male rib extending from one of the handles and at least one depending female recess formed in the other of the handles.
90. The container of claim 88, wherein the bottom includes at least one reinforcing rib.
91. A thermoplastic container, comprising:
a base including
a bottom,
a continuous wall extending upward from and encompassing the bottom, and
a base rim, the base rim encompassing an upper edge of the continuous wall and extending laterally outwardly therefrom, the rim including an integrally formed outer flange, the outer flange having anchoring portions and a pair of hinged handles, the handles being hingedly connected to the anchoring portions for upward and downward swinging movement, the handles having means for releasably engaging the handles to each other, at least one of the handles having at least one rib segment extending from a surface of the associated handle;
and
a cover including

a top,

a continuous cover wall, and

a cover rim, the cover wall extending downward from and encompassing the top, the cover rim encompassing a lower edge of the cover wall and extending laterally outwardly therefrom, the cover rim adapted for matingly engaging the base rim.

92. The container of claim 91, further including means for securing the cover to the base.

93. The container of claim 92, wherein the means for securing the cover to the base includes a downwardly protruding rib of the cover rim and an upwardly protruding elongated rib of the base rim, the downwardly protruding rib of the cover rim being adapted for complementary press-fittable engagement with the upwardly protruding elongated rib of the base rim.

94. The container of claim 92, wherein the means for securing the cover to the base includes at least one male rib and at least one corresponding female recess.

95. The container of claim 91, wherein the container includes means for stacking the containers.

96. A thermoplastic container, comprising:

a bottom;

a continuous wall extending upward from and encompassing the bottom, and

a base rim encompassing an upper edge of the continuous wall and extending laterally outwardly therefrom, the rim having an integrally formed outer flange with a pair of opposing anchoring portions, the outer flange forming at least one handle segment, each of the handle segments having a pair of generally parallel hinged portions and a graspable portion extending between the hinged portions, the hinged portions being rotatably connected to the respective anchoring portions for upward and downward swinging movements, the handle segments having means for releasably engaging the handle segments to each other, each of the hinged portions having at least one rib segment extending from a surface of the associated hinged portion.